The Languages of Disaster: When "Press Two for Spanish" Isn't Enough

By
Col John Conway, USAF (Ret)

"… Americans are far more likely to be caught in the cross hairs of a major natural disaster such as an earthquake, flood, forest fire or a hurricane than an attack by terrorists."

Steven Flynn, Senior Fellow, Council on Foreign Relations[1]

Before Hurricane Katrina's landfall, local, state, and federal authorities worked hard to notify the Gulf Coast's population of evacuation orders and evacuation routes. There were hourly reports of Katrina's probable track and the broadcast media were used extensively to encourage Gulf Coast residents to take action. However, information lines set up by Federal Emergency Management Agency (FEMA) only gave callers a choice of English and Spanish, and all radio broadcasts were in English, except for one Spanish language station in New Orleans.[2]

Emergency officials did not address the information needs of 30,000 Vietnamese living in South Louisiana and more than 7,000 others in southern Mississippi – part of an Asian immigrant population along the Gulf Coast in excess 50,000.[3] Because warnings and directives were not in a language these individuals could understand easily, many stayed behind and rode out the storm.[4] During subsequent relief operations, language barriers were also a problem, and many sought information from ethnic enclaves rather than from government or non-governmental relief agencies that had deployed to provide that help.[5]

According to a University of Illinois study, language is one of several "social vulnerability" factors impacting disaster relief efforts, but one that is rarely given attention by

[1] "Flynn: US not prepared for the next "big one."" CNN.com. February 20th, 2007. Accessed at http://www.cnn.com/2007/US/02/20/flynn.commentary/index.html.

[2] Jonathan Blazer and Brett Murphy, "Addressing the Needs of Immigrants and Limited English Communities in Disaster Planning and Relief: Lessons for Government Disaster relief Agencies and Community-Based Organizations." National Immigration Law Center. Immigrants' Rights Update. Vol. 22, Issue 8. October 28, 2008. p. 6. Accessed online at www.nilc.org. See also "Briefing Highlights Katrina's toll on Asian American communities in the Gulf." October 19, 2005. Accessed online at www.civilrights.org/issues/poverty/details.cfm?id=36952.

[3] Blazer and Murphy, p. 6.

[4] "Language gap increases hurricane danger." Russ Henderson, Mobile Press-Register. May 26, 2008. Accessed online at http://www.al.com/news/mobileregister/index.ssf?/base/news/1148894274263030.xml&coll=3

[5] Executive Director of Latino Memphis, Dr. Jose Velazquez, told of the attitude of a local Red Cross shelter near Bay St. Louis, Mississippi that "…did not employ Spanish interpreters, refused offers form volunteer interpreters and turned away at least two families because they did not bring Spanish interpreters with them. Quoted in Blazer and Murphy, p. 3.

emergency planners.[6] The report observed that lack of proficiency in English can marginalize those affected by disasters and inhibit interaction between rescuers and those to be rescued. To pinpoint areas of concern, counties with more than 3.8% of its population with Limited English Proficiency (LEP) individuals are characterized as having a High English Non-Proficiency rate. Because of this "social vulnerability," these areas merit special attention in planning for disaster relief.[7]

Observers also have noted that failure to communicate effectively not only endangers LEP persons, "… but threatens to put into harm's way first responders tasked with rescuing people." [8] Put another way, being able to communicate in the same language protects all parties. Moreover, providing linguistic support isn't all about altruism and doing the right thing, it's also federal law. Title VI of the Civil Rights Act of 1964- reaffirmed via Executive Order in 2000 - requires "reasonable steps" to provide LEPs with language services to ensure their participation in federally funded services.[9]

Overseas humanitarian missions include language requirements, but have been only a niche interest item for domestic disasters despite the "reasonable steps" directive. The 2010 Quadrennial Homeland Security Review Report observed: "… emergency information must be accessible through as many pathways as possible, to include multiple languages, through social networks in low-income areas, and to those with special needs." [10] However, this was the sole reference to language in its 120+ page report. DoD testimony in 2008 noted that each Service "… must allow for unforeseen circumstances, such as humanitarian assistance for natural disasters, and develop its own plan for providing the language and cultural training needed in its forces." Nevertheless, no further direction or timeline for implementation has been given.[11] Also in 2008, the *Journal of Homeland Security and Emergency Management* urged planning for language needs by the Department of Homeland Security, but it focused solely on the terrorist threat to the nation, not on the greater danger of natural disasters.[12]

To grasp the scope of language problems in domestic catastrophes, stimulate thought, and encourage deliberate planning, here are a few "natural disasters in waiting" and a list of major LEP communities in those areas that would need help.

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[6] Other social vulnerability factors specifically identified in disasters are disability, income, and age (under the age of 5 and over 65). "Impact of New Madrid Seismic Zone Earthquakes on the Central USA." Volume 1. Mid-America Earthquake Center, University of Illinois. MAE Center Report No. 09-03. October 2009. p. 99. Accessed at https://www.ideals.illinois.edu/handle/2142/14810.

[7] "Impact of New Madrid Seismic Zone Earthquakes on the Central USA.". p. 99.

[8] Blazer and Murphy. p.5.

[9] Blazer and Murphy. P.

[10] Department of Homeland Security. Quadrennial Homeland Security Review Report. February, 2010, pp 62-63. Accessed at http://www.dhs.gov/xlibrary/assets/qhsr_report.pdf.

[11] Testimony of Ms Gail Mcginn, DoD Senior Language Authority, before the House Armed Services Committee Subcommittee on Oversight and Investigations September 10, 2008. Accessed at http://www.dod.gov/dodgc/olc/docs/testMcGinn080910.pdf.

[12] Tare, Medha (2006) "Assessing the Foreign Language Needs of the Department of Homeland Security," *Journal of Homeland Security and Emergency Management*: Vol. 3: Issue 1, Article 5. Medha Tare. Accessed at http://www.bepress.com/jhsem/vol3/iss1/5.

Scenario One: California Earthquakes

There is a 62% probability that at least one earthquake of a magnitude 6.7 or greater will occur in San Francisco's Bay Area before 2032.[13] Approximately 339,000 of San Francisco County's 744,011 residents (over 45%) speak a second language and nearly 100,000 (99,431) of them speak English "not well" or "not at all." In raw numbers, that's more than one person out of eight in the county**.** Over twice as many (56,780) speak Chinese rather than Spanish, and 5,540 speak Russian and little or no English.[14] Across all nine Bay Area counties, the LEP population is 529, 021, or roughly 8.3% of the total, comprising a polyglot cohort of forty-nine+ languages ranging from Amharic to Urdu.[15]

The Los Angeles basin will face a tougher language problem if the "Big One" hits. There are 1,395,153 LEPs in Los Angeles County alone, almost 16% of the total population. As may be expected, over one million (1,078,425) of these are Spanish speakers. However, there is a sizeable non-Spanish LEP group of 316,728 LEPs (about 3.6% of the county) that include 86,900 Chinese (all dialects), 61,000 Korean, 38,370 Armenian, and 24,870 Vietnamese speaking individuals.[16]

Scenario Two: The Return of the Long Island Express

In September 1938, a Category 5 hurricane - "The Long Island Express" - slammed into Long Island with wind gusts in excess of 180 mph and produced a storm surge so powerful it registered on Fordham University's seismograph.[17]

Because approximately 78% of the coastal population of New York State has never experienced a major hurricane, many may not heed evacuation warnings if another "Long Island Express" approached.[18] In its western counties, the boroughs of Queens and Brooklyn, over 550,000 of the 4.3 million residents (about 12.7%) are LEPs.[19] Its two eastern counties, Suffolk and Nassau, have over 90,000 LEPs, or about 3.6% of the population.[20]

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[13] "Putting Down Roots in Earthquake Country –Your Handbook for the San Francisco Bay Region." US Geological Survey General Information product 15. 21 August, 2005. US Geological Survey. p. 14. Accessed at http://pubs.usgs.gov/gip/2005/15/.

[14] The Modern Language Association (MLA) Language Map, San Francisco County, California map. Main map accessed at http://www.mla.org/map_main.

[15] MLA Language Map, San Francisco, Alameda, Marin, San Mateo, Santa Clara, Contra Costa, Solano and Sonoma, and Napa County, California Maps.

[16] MLA Language, Los Angeles County, California. Languages range from Armenian to Yoruba.

[17] "The Long Island Express: The Great Hurricane of 1938." Accessed at http://www2.sunysuffolk.edu/mandias/38hurricane/. Damage to the then sparsely populated area was significant (700 deaths, 708 injuries 4,500 home destroyed), but would pale in comparison to the damage even a moderate-sized hurricane could do if it made landfall in the same area today.

[18] "The Long Island Express – What's in Store for New York's Future?" Accessed at http://www2.sunysuffolk.edu/mandias/38hurricane/hurricane_future.html.

[19] MLA Language Map, Queens and Brooklyn Boroughs, New York.

[20] MLA Language Map, Suffolk and Nassau Counties, New York.

Scenario Three: A "Whole Lot of Shaking Going On" in The New Madrid Seismic Zone

The New Madrid Seismic Zone (NMSZ) comprises a large area clustered mainly along the Mississippi river, incorporating parts of Illinois, Indiana, Kentucky, Tennessee, Mississippi, Alabama, Arkansas, and Missouri. [21] A major earthquake (magnitude M7+) in the NMSZ would impact 140 counties in those eight states and result in over 86,000 injuries and fatalities. Over seven million residents would need immediate shelter and relief efforts for the entire region may require over 42,000 search and rescue personnel.[22] While there are no "high" LEP population clusters in the NMSZ, there are several counties with LEP rates in excess of 3% of the population.[23]

Scenario Four: Disaster(s) in the Emerald City

The potential for disaster in the Northwest has three faces: the Seattle Seismic Fault, the Cascadia Subduction Zone, and Mount Rainier. The Seattle Fault sits astride the city and its surrounding municipalities and a magnitude M 6.7 earthquake along that fault would cause 1600 deaths and over 24,000 injuries.[24] Off the coast lies the Cascadia Subduction Zone, only now being recognized as a major threat to the area. A shift of its tectonic plates would produce a magnitude M9 undersea earthquake, triggering a tsunami, and liquefying soil on nearby beaches and inlets.[25] If that's not enough to worry about, the US Geologic Survey (USGS) estimates about 80,000 people are at risk in Mount Rainier's lahar-hazard zone, making it a far greater threat to life in the region than Mount Saint Helens.[26]

The three Washington counties most affected by these events (Pierce, King and Snohomish) have more than 2.4 million residents, of which over 441,000 speak a language other than English. This includes 91,000 LEPs, about 3.7% of the total population, comprised of more than 30 languages, including Norwegian, Cushite, and Chamorro.[27]

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[21] "Impact of New Madrid Seismic Zone Earthquakes on the Central USA.". p. 132.
[22] Impact of New Madrid Seismic Zone Earthquakes on the Central USA." p. 99.
[23] Impact of New Madrid Seismic Zone Earthquakes on the Central USA." p. 99 -100.
[24] "Scenario for a Magnitude 6.7 Earthquake on the Seattle Fault." Earthquake Engineering Research Institute and the Washington Military Department Emergency Management Division. June, 2005. p. 4. This document points out the special needs of the many non-English speakers in the area. However, it makes no recommendations on how to address them. Accessed at http://seattlescenario.eeri.org/documents/EQScenarioFullBook.pdf.
[25] "Cascadia Subduction Zone Earthquakes: A Magnitude 9.0 Earthquake Scenario, 2005." The Cascadia Region Earthquake Workgroup 2005. p. 17. Accessed at http://www.crew.org/PDFs/CREWSubductionZoneSmall.pdf. Subduction Zone earthquake events are significantly stronger than shallow-fault events such as those that could occur along the Seattle Fault.
[26] Carolyn L., Driedger, and William E Scott. "Mount Rainier; living safely with a volcano in your backyard." U.S. Geological Survey Fact Sheet 2008-3062. Version 1.0. August 28, 2008. Accessed at http://pubs.usgs.gov/fs/2008/3062/. Interestingly, National Geographic places Mount St. Helens ahead of Mount Rainier. See "18 Most Dangerous U.S. volcanoes Include Erupting Alaska Peak. John Roach. "National Geographic News." January 20, 2006. Accessed at http://news.nationalgeographic.com/news/2006/01/0120_060120_volcanoes.html.
[27] This includes over 12,000 Vietnamese speakers, 10,000 others who speak some dialect of Chinese, and another 9,670 whose language is Korean. Source: MLA Language Map, Pierce, King and Snohomish, County, Washington.

These are some very specific examples, but almost any large metropolitan area can be the scene of a natural or man-made disaster. All are home to numerous ethnic enclaves with LEPs.

FEMA's post-disaster language plan calls for hiring contract translators / interpreters and recruiting volunteer translators from local ethnic enclaves. However, this process focuses on long-term translation help (loans, relocations) and doesn't address the immediate post-disaster needs of LEPs (rescue and medical triage).[28] So how can first responders be able to meet the immediate needs of LEPs? Unless they know what languages are needed, this could prove difficult. To the rescue (pun intended) come the language maps of the Modern Language Association's web site, http://www.mla.org/map_main. These maps can be tailored to fit any area, and can include reference points for cities, rivers, and major roads. They can detail the language makeup of entire states and are scalable down to a single Zip Code.

Here's a practical example of how it might work: the Seattle Fault's projected epicenter is a trench in Vasa Park, which is located in Bellevue, Washington (Zip Code 98008).[29] MLA's language map reveals that a third (5695) of its 16,000 citizens in 98008 speak a language other than English. Of that cohort, there are about 1200 Spanish speakers and another 859 who speak Chinese. The five most common LEPs in Zip Code 98008 are Spanish and Chinese, plus Japanese (382), Russian (382), and Vietnamese (330). In all, there are 34 separate tongues in Zip Code 98008.[30] Harvesting this information will focus rescuers' efforts on finding Spanish and Chinese speakers, among others, to provide support. This method can be applied to any area in the United States and should be part of any first-response planning. In this way, language needs can be identified before deployment and language resources can be pre-identified as required.

Like politics, all disasters are local. And within each disaster there will be citizens whose lack of English proficiency will make them especially vulnerable to hardship, danger, exploitation, and injury. First responders must be able to communicate with them in order to provide relief and mitigate suffering. Knowing what languages are needed and who can speak them will be crucial to any post-disaster success. With a little planning and effort, these needs can be successfully met, no matter when or where a disaster occurs.

Col John Conway, USAF (Ret) is a senior defense analyst & researcher at The Air University's AF Research Institute. The opinions express here are solely those of the author and may not represent the policies of the US Air Force or the Department of Defense.

[28] "Selected Agencies Can Improve Services to Limited English Proficient Persons." Government Accountability Office Report to Congressional Requesters. GAO-10-91. April 2010. pp. 16-17. Accessed at http://www.gao.gov/new.items/d1091.pdf.
[29] MLA Language Map, Zip Code 98008.